

Notice of Allowability

Application No.

09/899,031

Examiner

Michael J Feely

Applicant(s)

ICHIHASHI ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 4/15/04.
2. ☒ The allowed claim(s) is/are 2-22 and 24-52.
3. ☒ The drawings filed on 06 July 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 0404
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION***Examiner's Amendment***

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Replace the Abstract with:

-- A liquid crystal composition comprises liquid crystal molecules and an alignment promoter. The alignment promoter is represented by the formula (I): $(\text{Hb}-\text{L}^1)_n\text{Bl}$ (I). In the formula (I), Hb is an aliphatic group having 4 to 40 carbon atoms, an aromatic group having 6 to 40 carbon atoms or an aliphatic substituted oligosiloxanoxo group having 1 to 40 carbon atoms. L^1 is a single bond or a divalent linking group, and n is an integer of 2 to 12. Bl is an n-valent group comprising at least two rings. --

The change to the abstract simply provides a single-paragraph format. The content has not changed.

Allowable Subject Matter

1. Claims 2-22 and 24-52 are allowed.
2. The following is an examiner's statement of reasons for allowance:

Regarding claims 6 and 2-5, 7-19: independent claim 6 is drawn to a liquid crystal composition comprising: a) liquid crystal molecules, and b) an alignment promoter present in an amount of 0.01-20 wt% based on a). The alignment promoter has the formula $(\text{Hb}-\text{L}^1)_n\text{Bl}$, wherein: Hb

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is a hydrophobic group selected from the group selected from the group consisting of an aliphatic group having 4-40 carbon atoms, an aromatic group having 6-40 carbon atoms, and an aliphatic substituted oligosiloxanoxy group having 1-40 carbon atoms; L^1 is a single bond or divalent linking group; n is 2-12; and **BI** is an n-valent group comprising at least two rings *and showing an excluded volume effect*.

In the previous Office action, this claim was rejected under 35 USC 102(e) as being anticipated by Matsuoka et al. (US Pat. No. 6,245,398) and Kawata et al. (US Pat. No. 6,338,808), wherein Kawata et al. was used to show that the n-valent group having at least two rings in Matsuoka et al. was inherently a group showing an excluded volume effect. Applicant has challenged this assertion, and after further consideration, the Examiner agrees with Applicant's stance. The "bulky" structure in Kawata et al. is similar to the one set forth in Matsuoka et al.; however, these structures are not the same. Hence, inherency has not been established with requisite certainty.

Furthermore, Applicant has submitted two declarations under 37 CFR § 1.132 to show that the inventive entity of the instant application was responsible for adding the specific portion of the Kawata et al. reference that was cited in the previous Office action. These declarations disqualify this portion of Kawata et al. reference as a 102(e) reference because the cited portion was not by another. Claims 2-5 and 7-19 are allowed because they are dependent from claim 6.

Regarding claims 20-22: independent claim 20 is drawn to an optically anisotropic element which comprises a liquid crystal layer comprising liquid crystal molecules and an orientation layer provided on one side of the liquid crystal layer, wherein the liquid crystal layer further

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contains an alignment promoter represented by the formula (I) in an amount of 0.005 to 0.5 g/m²:
(Hb – L¹ –)_nBl, wherein: Hb is a hydrophobic group selected from the group selected from the group consisting of an aliphatic group having 4-40 carbon atoms, an aromatic group having 6-40 carbon atoms, and an aliphatic substituted oligosiloxanoxy group having 1-40 carbon atoms; L¹ is a single bond or divalent linking group; n is 2-12; and Bl is an n-valent group comprising at least two rings.

In the previous Office action, these claims were rejected under 35 USC 103(a) over Matsuoka et al. (US Pat. No. 6,245,398) in view of Kawata et al. (US Pat. No. 6,338,808). Applicant has overcome this rejection by filing a statement under 35 USC § 103(c), stating that the instant application and Kawata et al. (US Pat. No. 6,338,808) were owned by or subject to an obligation of assignment to FUJI PHOTO FILM CO., LTD, at the time the instant invention was filed.

Regarding claims 24-36: claim 24 is previous claim 7 written in independent form, including all the limitations of previous claim 1. Hence, claim 24 is allowed for the reasons set forth in section 12 of the previous Office action. Claims 25-36 are allowed because they are dependent from claim 24.

Regarding claims 47-52: claim 47 is previous claim 18 written in independent form, including all the limitations of previous claim 1. Hence, claim 47 is allowed for the reasons set forth in section 12 of the previous Office action. Claims 48-52 are allowed because they are dependent from claim 47.

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Regarding claims 37-46: claim 37 is previous claim 14 written in independent form, including all the limitations of previous claim 1. Hence, claim 37 is allowed for the reasons set forth in section 12 of the previous Office action. Claims 38-46 are allowed because they are dependent from claim 37.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Communication

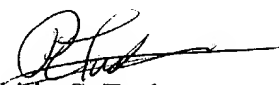
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Feely whose telephone number is 571-272-1086. The examiner can normally be reached on M-F 8:30 to 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J. Feely
Patent Examiner
Art Unit 1712



Philip C. Tucker
Patent Examiner
Art Unit 1712

June 5, 2004